

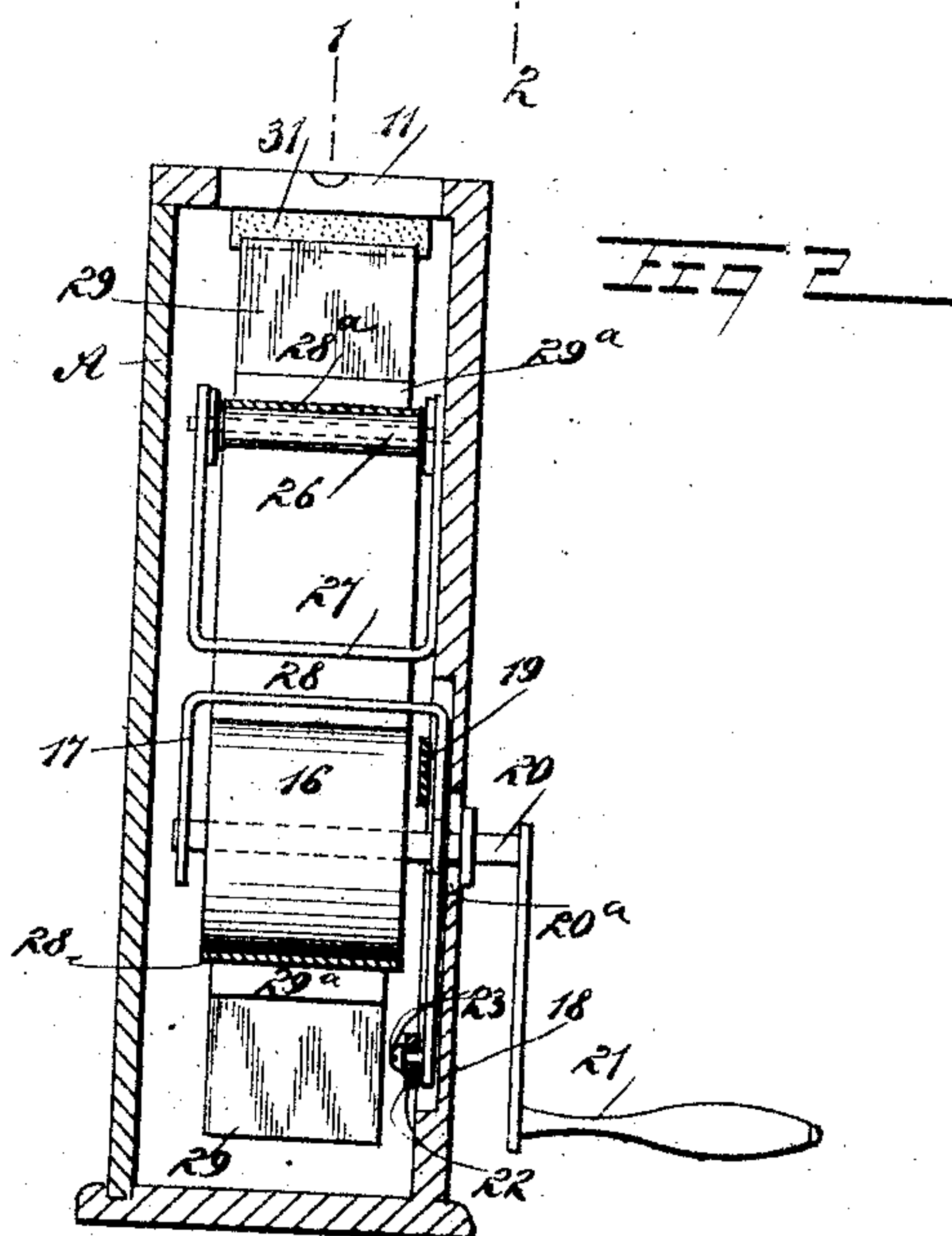
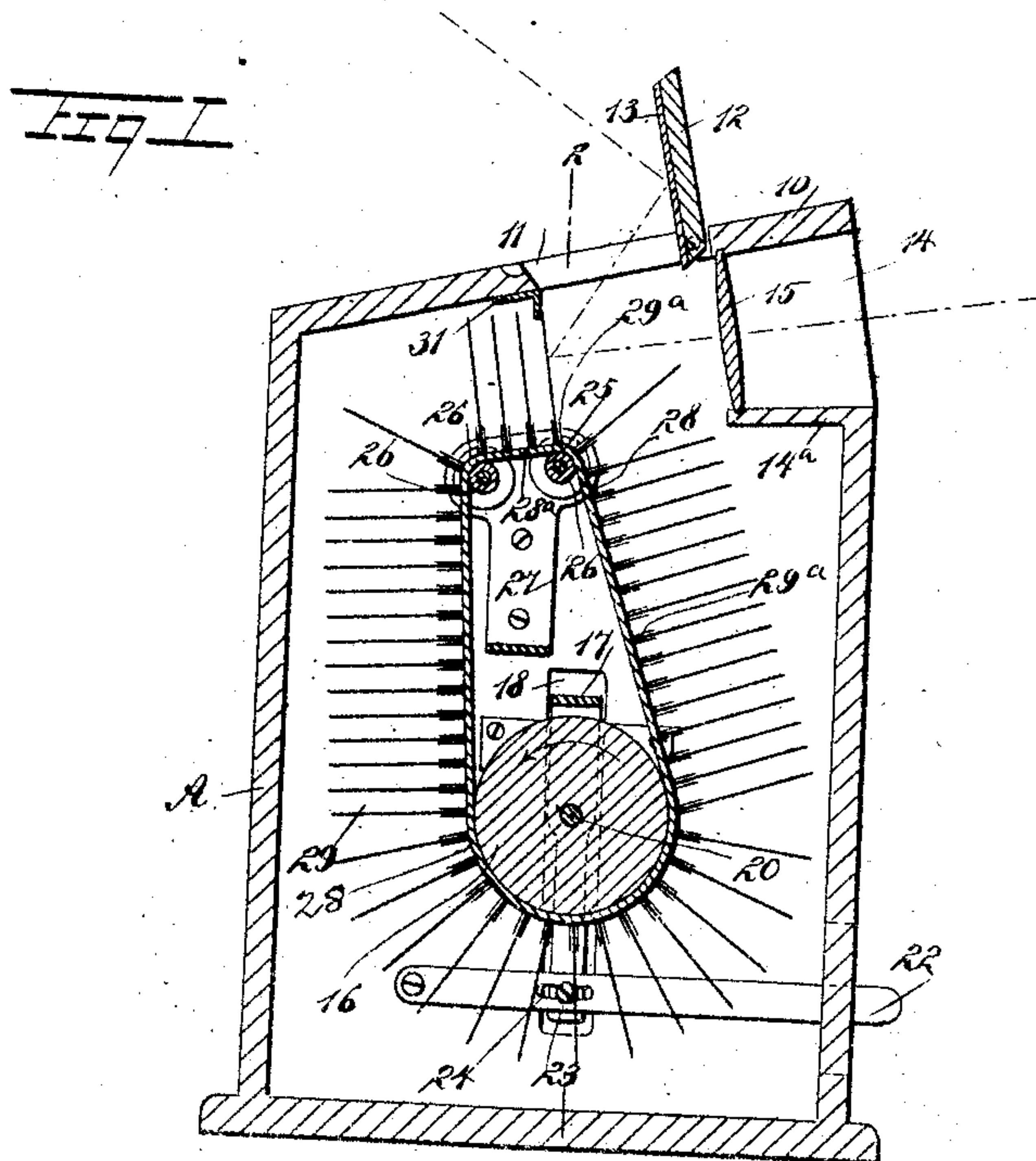
No. 617,643.

Patented Jan. 10, 1899.

**W. B. DAVIS.
KINETOSCOPE.**

(Application filed Dec. 1, 1897.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

WARREN B. DAVIS, OF NEW YORK, N. Y.

KINETOSCOPE.

SPECIFICATION forming part of Letters Patent No. 617,643, dated January 10, 1899.

Application filed December 1, 1897. Serial No. 660,373. (No model.)

To all whom it may concern:

Be it known that I, WARREN B. DAVIS, of New York, (Brooklyn,) in the county of Kings and State of New York, have invented a new and useful Improvement in Kinetoscopes, of which the following is a full, clear, and exact description.

The object of the invention is to provide a kinetoscope of simple, durable, and economic construction, and, further, to provide such a support for the belt of pictures that the vanishing of a picture from within the range of vision will not in the slightest degree interfere with or detract from the effectiveness of a picture being brought within the line of vision.

A further object of the invention is to so control the movement of the vanishing picture that it will effectively blend with a picture approaching the line of vision and serve to produce a more realistic effect than is attainable by kinetoscopes of ordinary construction.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is a vertical longitudinal section through the machine, the section being taken substantially on the line 1 1 of Fig. 2; and Fig. 2 is a transverse vertical section through the machine, taken substantially on the line 2 2 of Fig. 1.

A represents the casing, which is of any desired shape, and ordinarily the top of the casing is given an inclination from the front downward and rearward, and in the inclined top 10 an opening 11 is provided for the admission of light to the casing, and the said opening is usually covered by a lid 12, having a reflecting material 13, such as a looking-glass, upon its inner face, so that when the lid is in the vertical position shown in Fig. 1 the light will be reflected into the casing and upon the pictures that are to be presented to the line of vision.

At the upper front portion of the casing an opening 14 is made, communicating with a

boxing 14^a, in which the lens 15 is secured, as is particularly shown in Fig. 1. Within the casing A a drum 16 is journaled at the central lower portion, the said drum being supported by a looped bracket 17, the outer member whereof is mounted to slide in a depression 18 in the side of the casing back of a cross-bar 19, the shaft 20, upon which the drum 16 is secured, being loosely passed through the two members of the said bracket 17 and through an elongated opening 20^a in the side of the casing, so that the axis or shaft of the drum, together with the bracket carrying said shaft 20, may be raised or lowered. The shaft or axis 20 of the drum is provided with a handle 21, attached to its outer end, whereby the drum may be revolved. The drum may be given a rotary movement or may be raised or lowered in any suitable or approved manner, the means for raising and lowering the drum illustrated consisting of a lever 22, which extends outward through a slot in the front of the casing, the inner end of the lever being pivoted to the inner face of the side of the casing through which the shaft of the drum passes, and the lever is provided between its ends with a longitudinal slot 24, through which a pin 23 is passed into the outer member of the bracket 17. The frictional engagement between the free end of the lever and the side of the casing is sufficient to hold the drum in the position in which it has been adjusted.

Ordinarily within the range of the diameter of the drum 16 two rollers 25 and 26 are journaled in an upper bracket 27, which is secured to the side of the casing in which the lower bracket 17 has movement. The plane tangential to the tops of the two rollers 25 and 26 is preferably parallel with the line of vision or parallel with the top 10 of the casing. Hence, as shown, a line drawn across the centers of the two rollers will have a downward and rearward inclination.

The endless belt 28 upon which the pictures 29 are secured is mounted to travel over the drum 16 and over the two upper rollers 25 and 26, the pictures being so attached to the belt as to extend usually at a right angle therefrom, and, as illustrated, sockets 29^a are formed on the belt, which grasp and retain the pictures.

By reference to Fig. 1 it will be observed that an upper stretch 28^a of belt 28, parallel to the line of vision, is obtained where the said belt passes over the rollers 25 and 26, so that two or more pictures will recede in substantially a horizontal plane from the observer, and therefore the forward or front picture, which is on the upper stretch 28^a of the belt, may be observed from top to bottom—that is to say, the full figure will be within the line of vision, and this picture will remain within the line of vision until the next ascending picture practically takes its place, and the observer will have not only a view of the ascending picture, but the view of the ascending picture will be so blended with that obtained from the horizontally-receding picture as to practically merge the two in one, producing to much better advantage than heretofore the effect of a figure in continuous motion by obviating the interruptions or abruptnesses in the change of vision which occur when a descending picture drops or disappears as rapidly from the line of vision as an ascending picture is brought up into said line of vision.

A stop 31, of felt or its equivalent, is secured to the upper inner surface of the casing adjacent to the rear edge of the light-opening 11, the object of the said stop being to cause a momentary pause when the picture reaches a position parallel with the lens, enabling the eye to take in all the details of the picture, yet not retarding the movement of the picture sufficiently to cause an interruption in the desired sequence of views.

The side of the casing opposite that in which the rollers are supported is made removable in order that the belt of pictures may be changed at will. In making a change of the belt of pictures the drum 16 is carried upward, so as to relieve the belt from tension, and the

said belt may be readily removed and another substituted. After the belt is in position the drum is carried downward until the belt is carried under sufficient tension to admit of its traveling with proper speed when the drum 16 is revolved.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A kinetoscope, comprising a casing provided with a sight-opening, a winding-roller located at the opposite end of the casing to the sight-opening, a bracket slidable in the casing toward and from the sight-opening, the winding-roller being journaled in said bracket, an operating-lever connected with said bracket, two rollers or guides located adjacent to the sight-opening in such a manner that the plane tangential to the outer faces of both guides will be substantially parallel to the line of vision, and a picture-belt carried by the rollers.

2. A kinetoscope, comprising a casing provided with a sight-opening, a roller provided with means for rotating it and located at the opposite end of the casing to said sight-opening, a looped or U-shaped bracket slidable in the casing toward and from the sight-opening, the said roller being journaled in the parallel members of said bracket, an operating-lever connected to said bracket and extending to the outside of the casing, two rollers located adjacent to the sight-opening in such a manner that the plane tangential to the outer faces of both rollers will be substantially parallel to the line of vision, and a picture-belt carried by the rollers.

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Witnesses:

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